

Principales enfermedades fúngicas del caqui. Descripción y estrategias de control

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1^{er} foro caqui Bayer

Valencia 6 de abril de 2016

□ ENFERMEDADES FÚNGICAS DEL CAQUI

➤ Mancha foliar (*Mycosphaerella nawae*)

➤ Pudrición de los frutos por *Alternaria*

➤ Enfermedades exóticas

Mancha foliar (*Mycosphaerella nawae*)



Mancha foliar (*Mycosphaerella nawae*)



'Tomatero'

Mancha foliar (*Mycosphaerella nawae*)



Mancha foliar (*Mycosphaerella nawae*)



Mancha foliar (*Mycosphaerella nawae*)



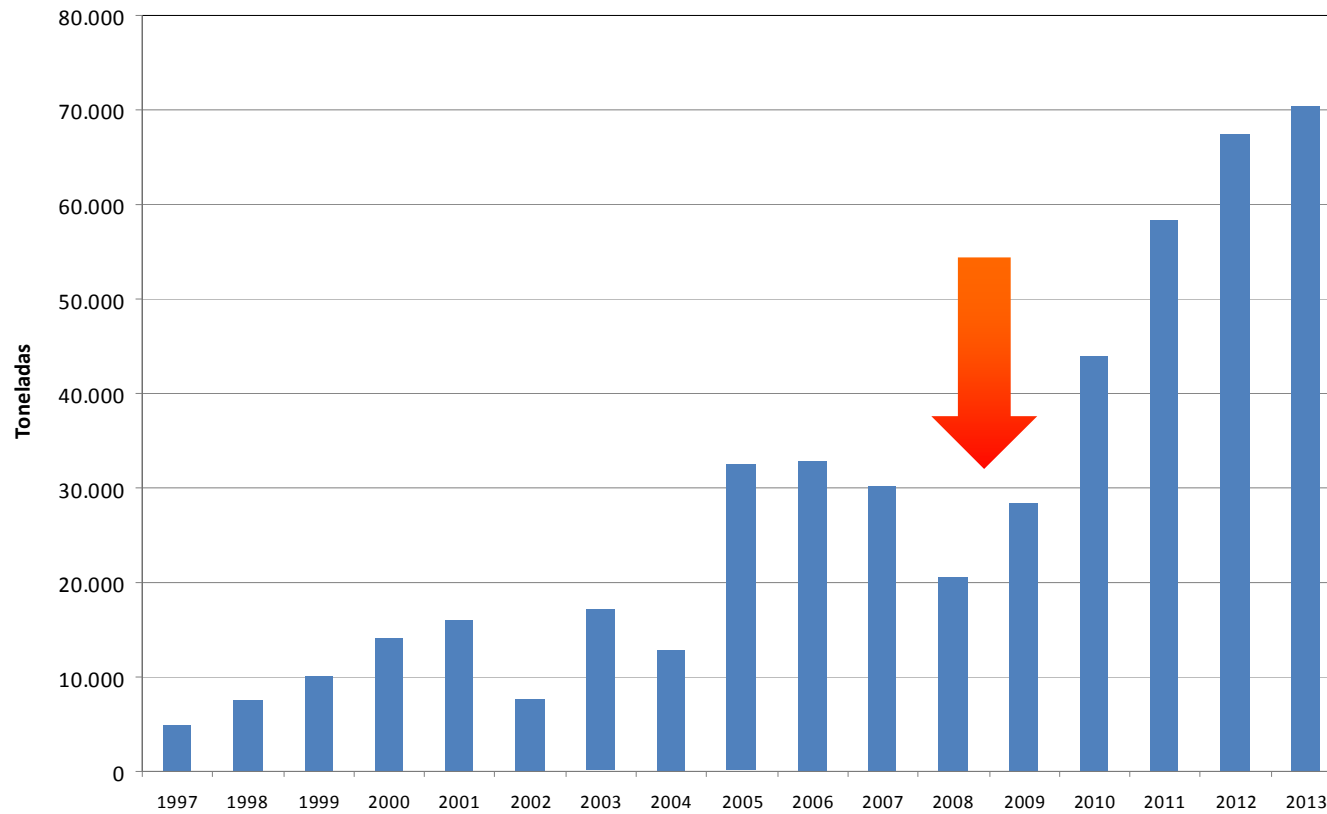
Mancha foliar (*Mycosphaerella nawae*)



Mancha foliar (*Mycosphaerella nawae*)



Mancha foliar (*Mycosphaerella nawae*)



Perucho (2015)

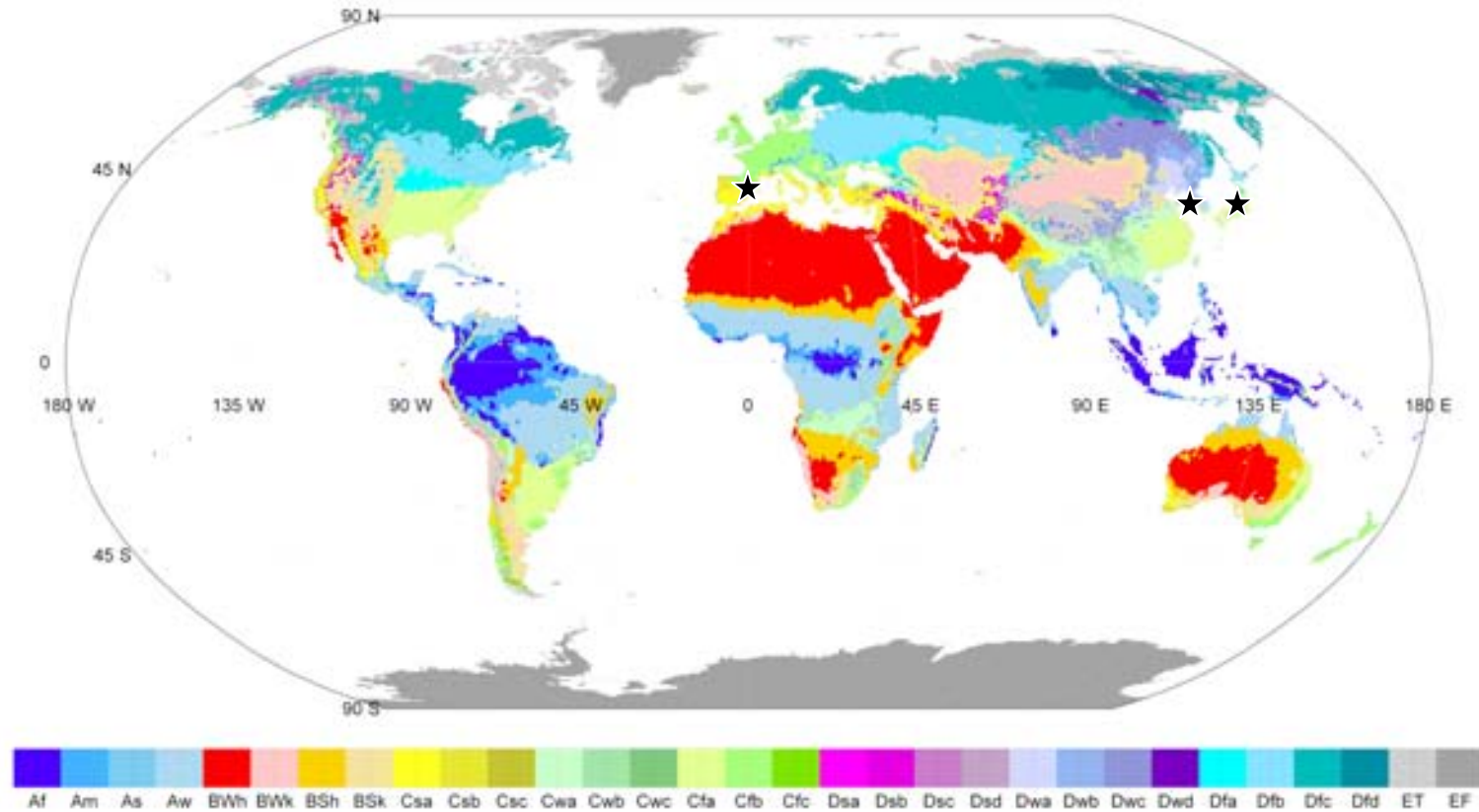
Mancha foliar (*Mycosphaerella nawae*)

- Agente causal



Mancha foliar (*Mycosphaerella nawae*)

World map of Köppen climate classification for 1901–2010



First letter	Second letter	Third letter
A: Tropical	f: Fully humid	T: Tundra
B: Dry	m: Monsoon	F: Frost
C: Mild temperate	s: Dry summer	h: Hot arid
D: Snow	w: Dry winter	k: Cold arid
E: Polar	W: Desert	a: Hot summer
	S: Steppe	b: Warm summer
		c: Cool summer
		d: Cold summer

Data source: Terrestrial Air Temperature/Precipitation: 1900-2010 Gridded Monthly Time Series (V 3.01)

Resolution: 0.5 degree latitude/longitude

Website: <http://hanschen.org/koppen>

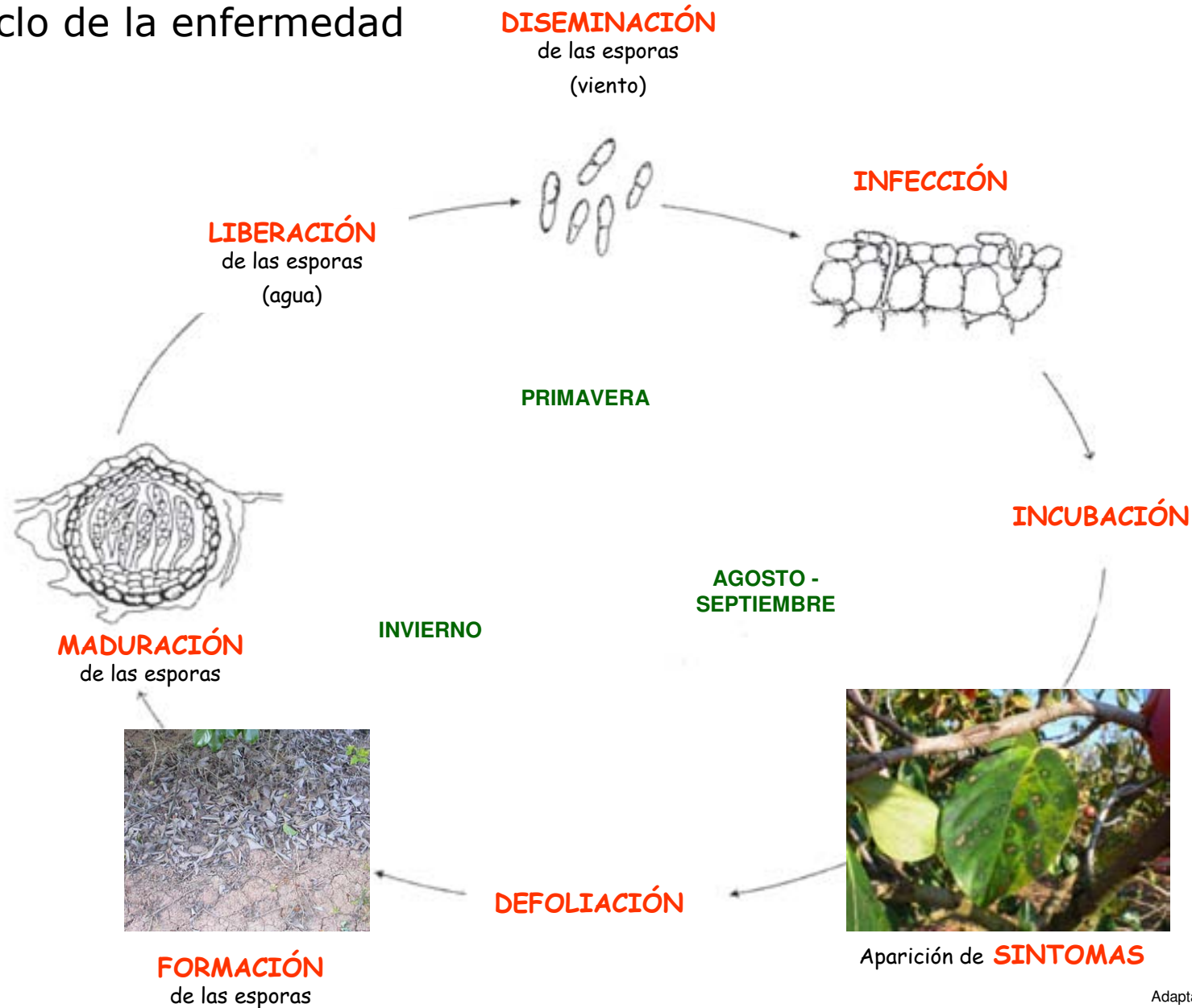
Ref: Chen, D. and H. W. Chen, 2013: Using the Köppen classification to quantify climate variation and change: An example for 1901–2010. *Environmental Development*, 6, 69-79. 10.1016/j.envdev.2013.03.007.

Mancha foliar (*Mycosphaerella nawae*)

Busan, Corea del Sur (2009)



□ Ciclo de la enfermedad

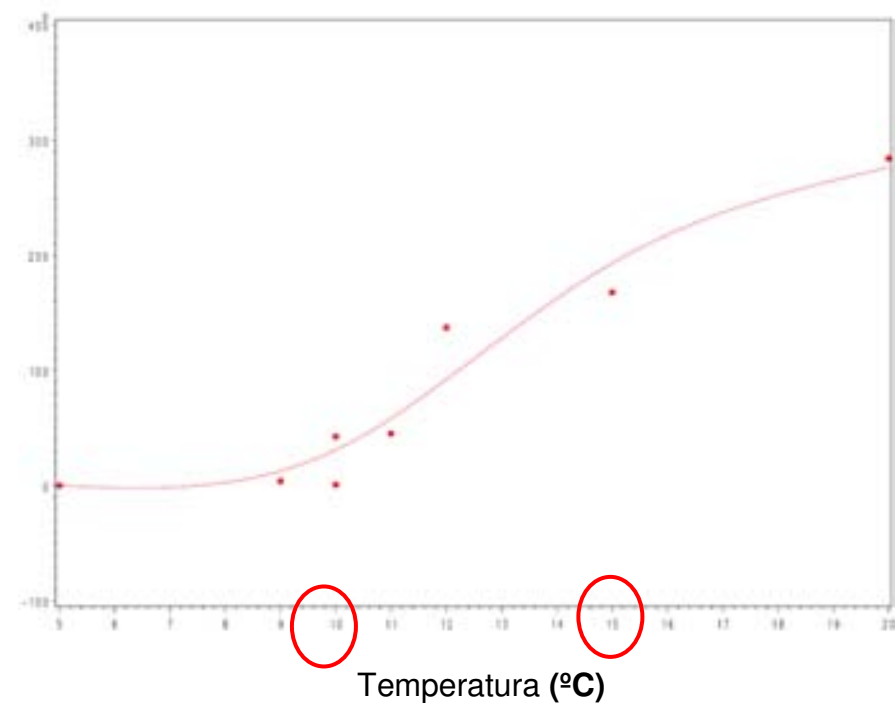
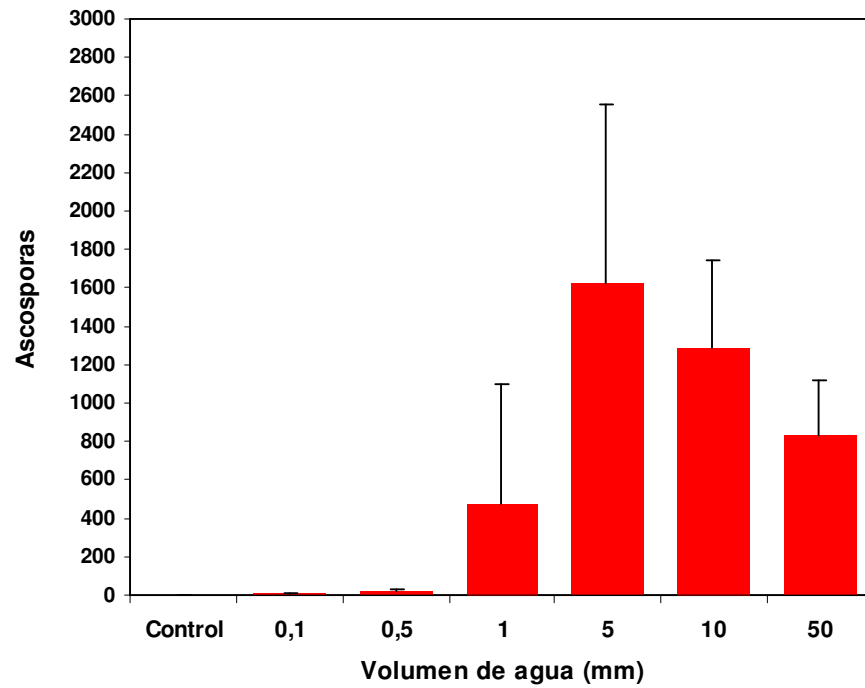


Mancha foliar (*Mycosphaerella nawae*)

- ❑ Inóculo en la hojarasca



□ Inóculo en la hojarasca



Mancha foliar (*Mycosphaerella nawae*)

- ❑ CONTROL: reducción de inóculo



Mancha foliar (*Mycosphaerella nawae*)

- ❑ CONTROL: reducción de inóculo



- ❑ CONTROL: reducción de inóculo

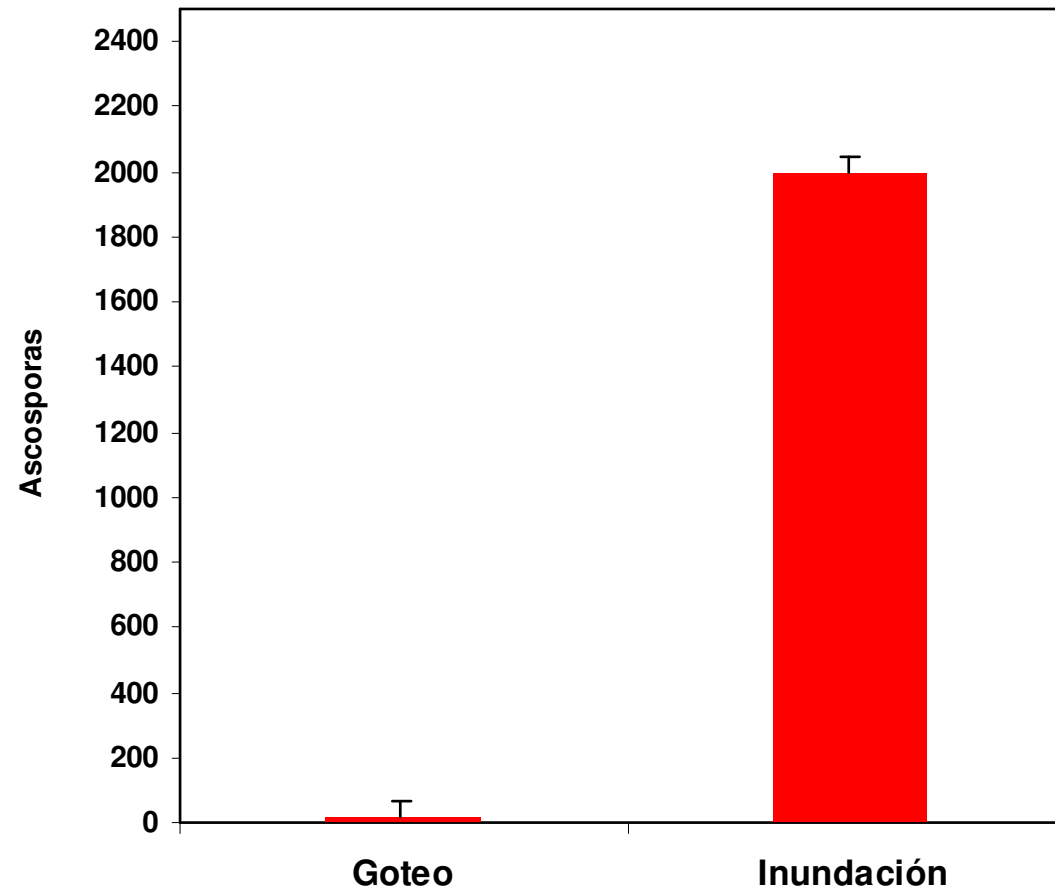
Riego por inundación (“manta”)



Riego localizado (“goteo”)

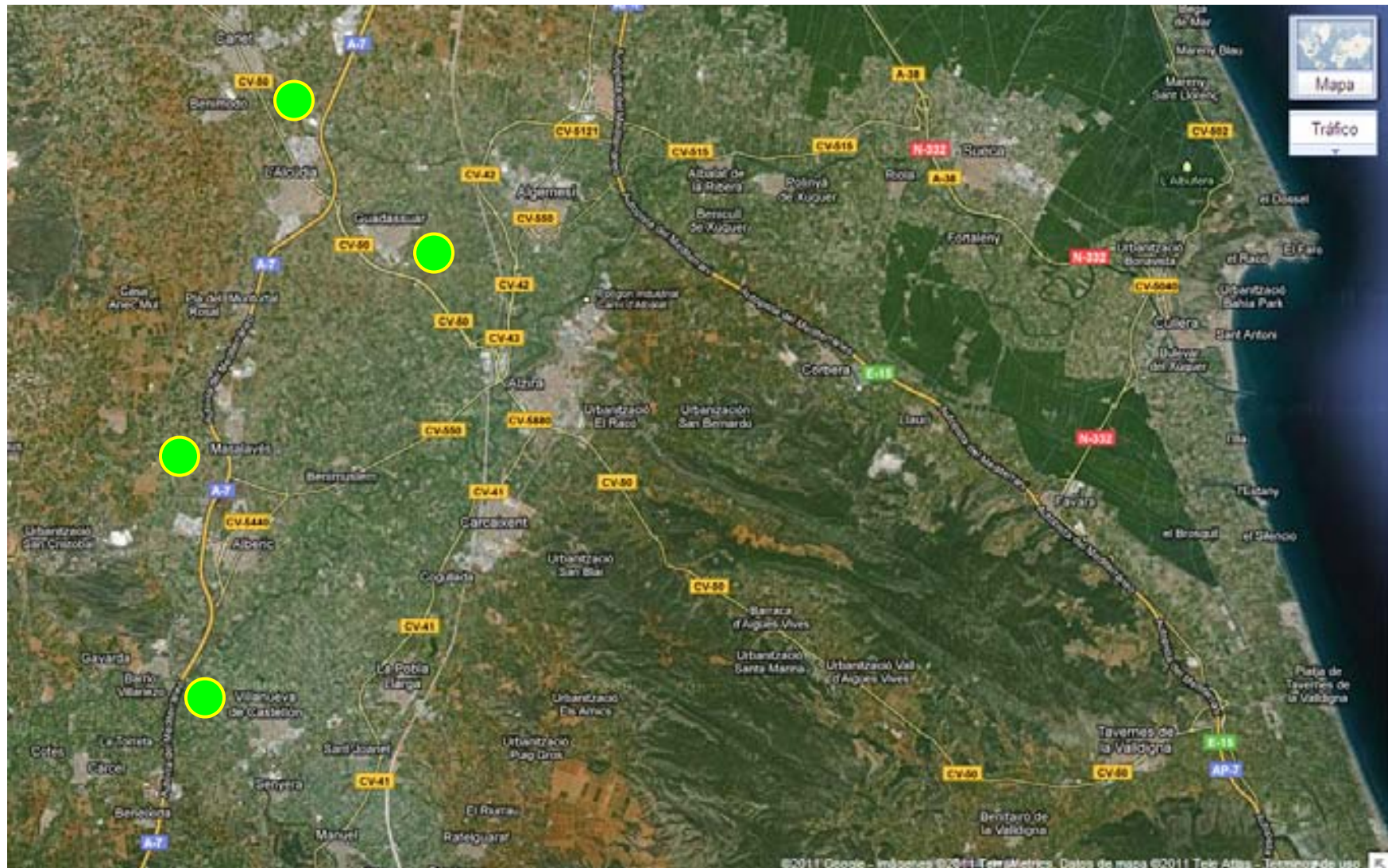


- ❑ CONTROL: reducción de inóculo



Mancha foliar (*Mycosphaerella nawae*)

- CONTROL: seguimiento del inóculo



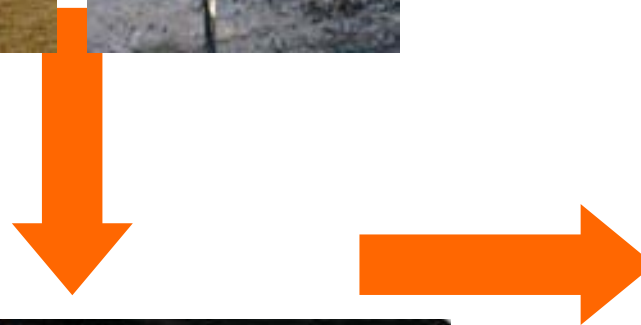
Mancha foliar (*Mycosphaerella nawae*)

□ CONTROL: seguimiento del inóculo

Inóculo en la hojarasca

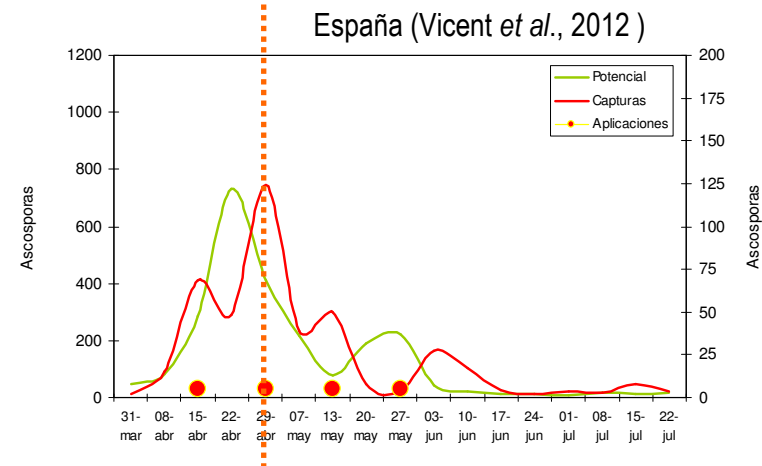
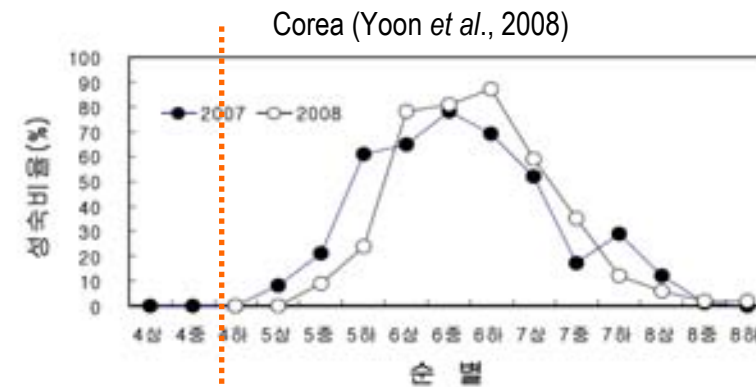
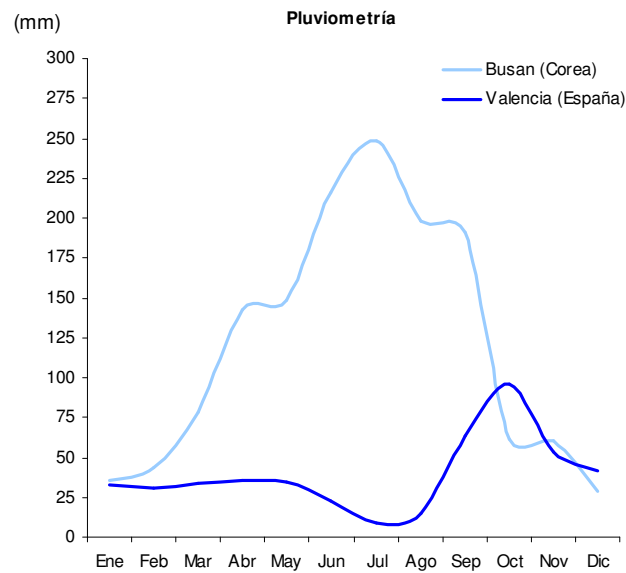


Datos climáticos

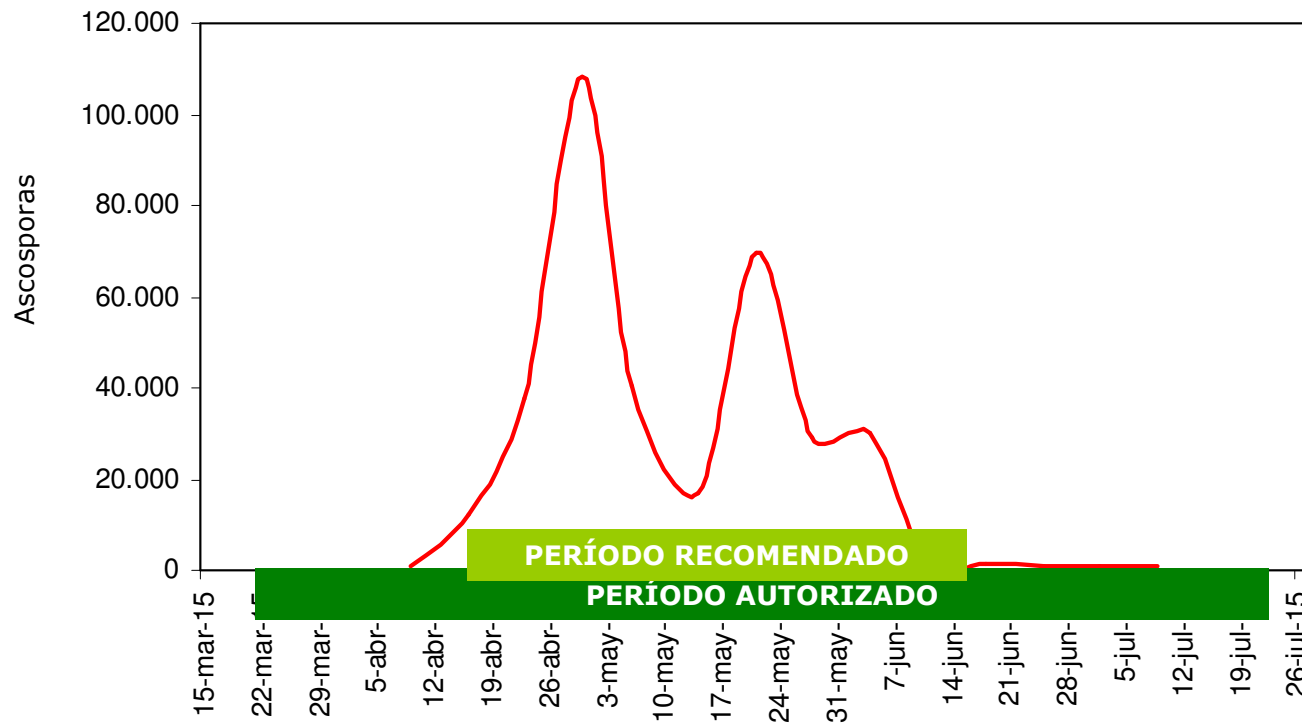


CONTROL: seguimiento del inóculo

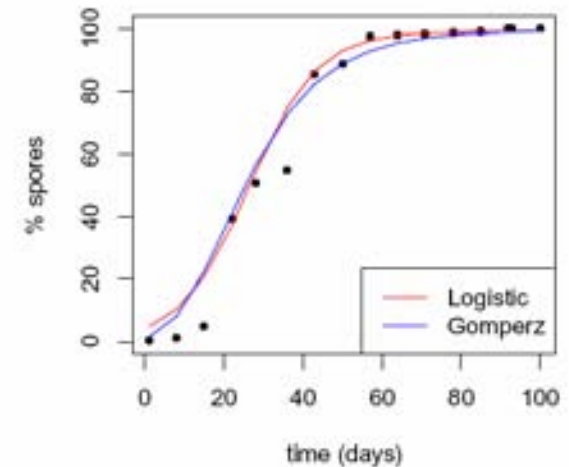
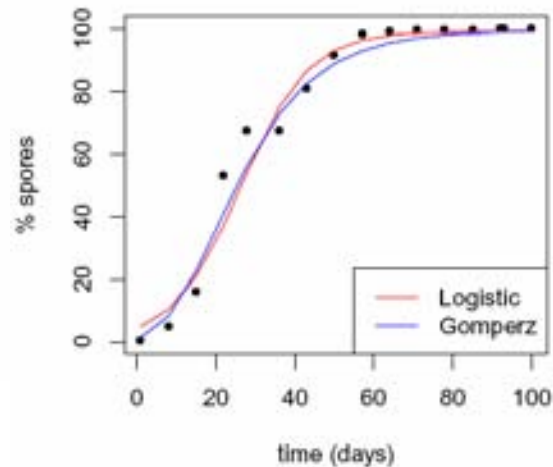
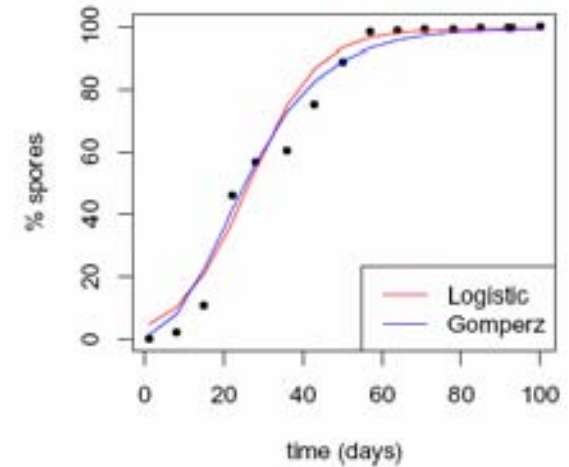
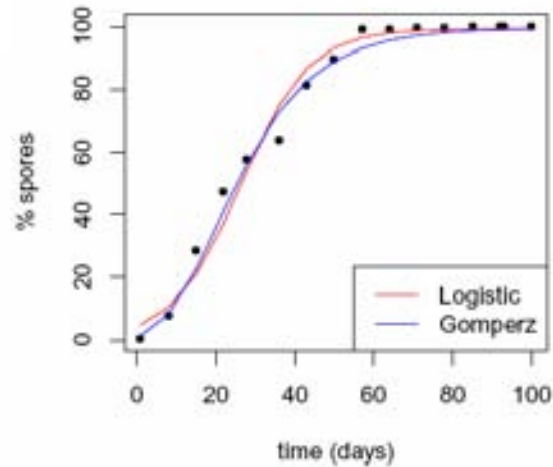
➤ Mecanismos de adaptación al clima mediterráneo



CONTROL: seguimiento del inóculo (ESTACIÓN DE AVISOS)

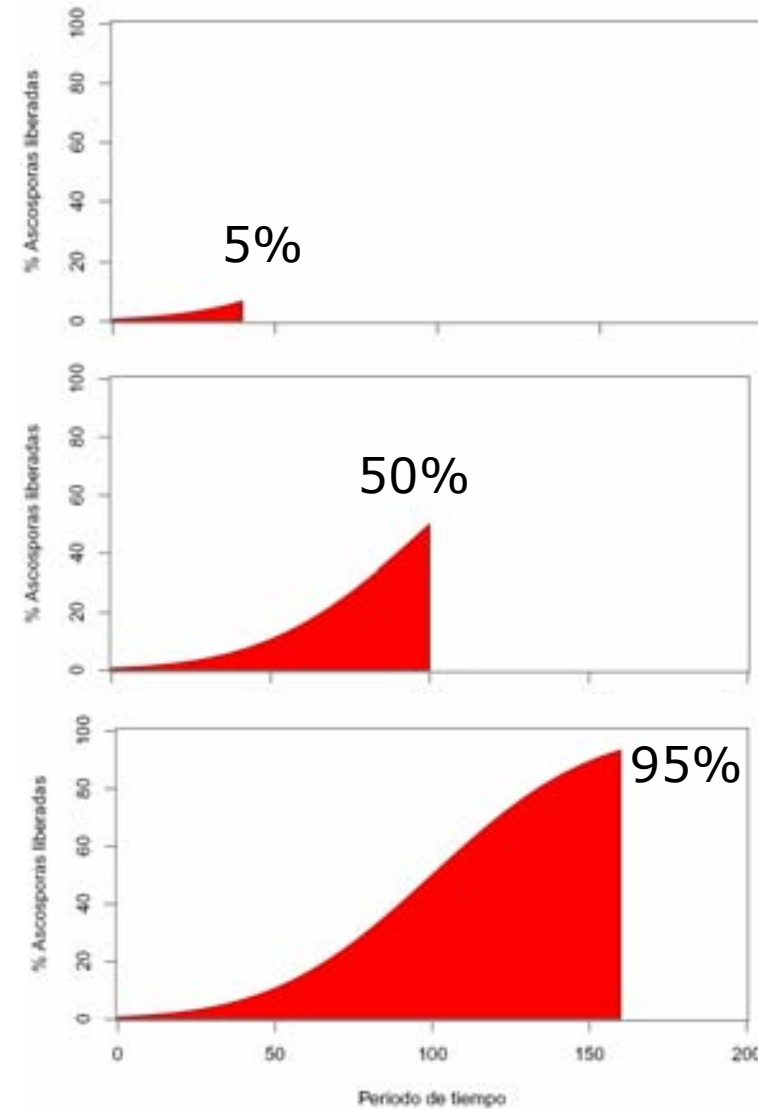


CONTROL: seguimiento del inóculo (ESTACIÓN DE AVISOS)



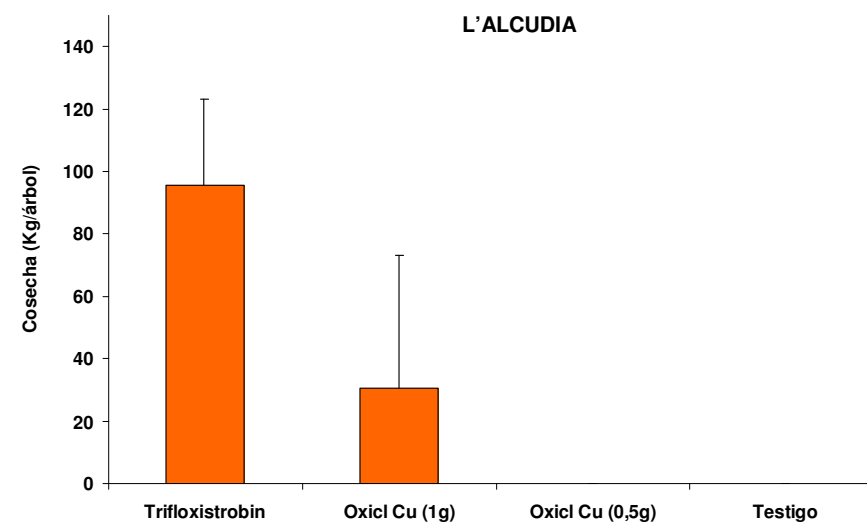
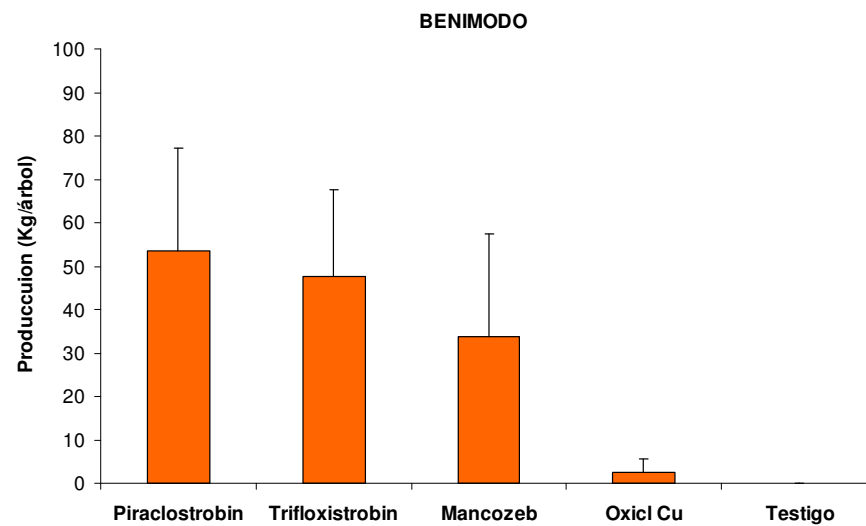
Mancha foliar (*Mycosphaerella nawae*)

CONTROL: seguimiento del inóculo (ESTACIÓN DE AVISOS)



Mancha foliar (*Mycosphaerella nawae*)

CONTROL: fungicidas



Mancha foliar (*Mycosphaerella nawae*)

- CONTROL: fungicidas

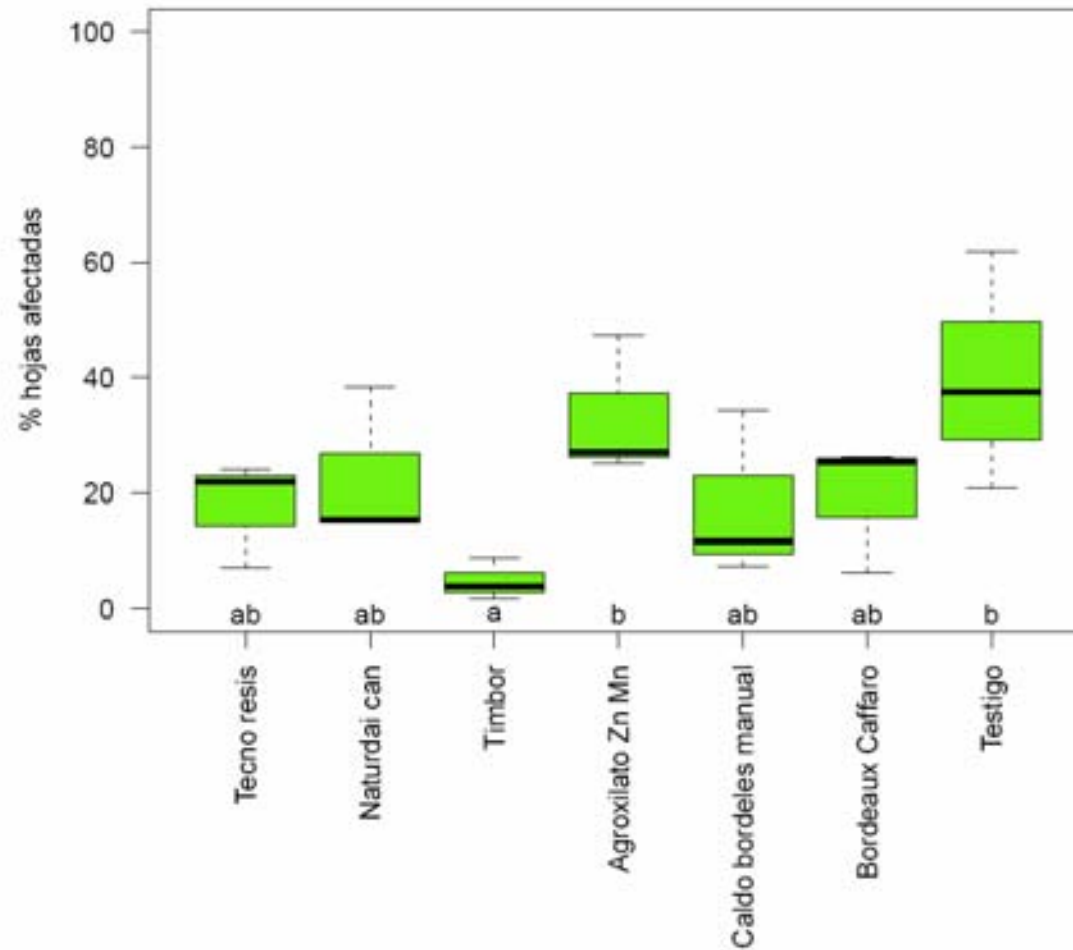


❑ CONTROL: AGRICULTURA ECOLÓGICA

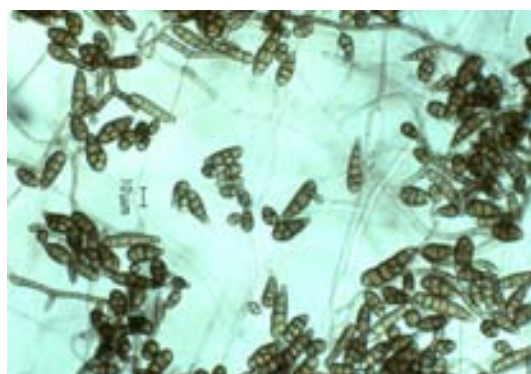


❑ CONTROL: AGRICULTURA ECOLÓGICA

➤ Ensayos de eficacia en campo (2012-2015)



Pudrición de los frutos por *Alternaria*



ANTRACNOSIS

Colletotrichum horii





WILT

Nalanthamala diospyri

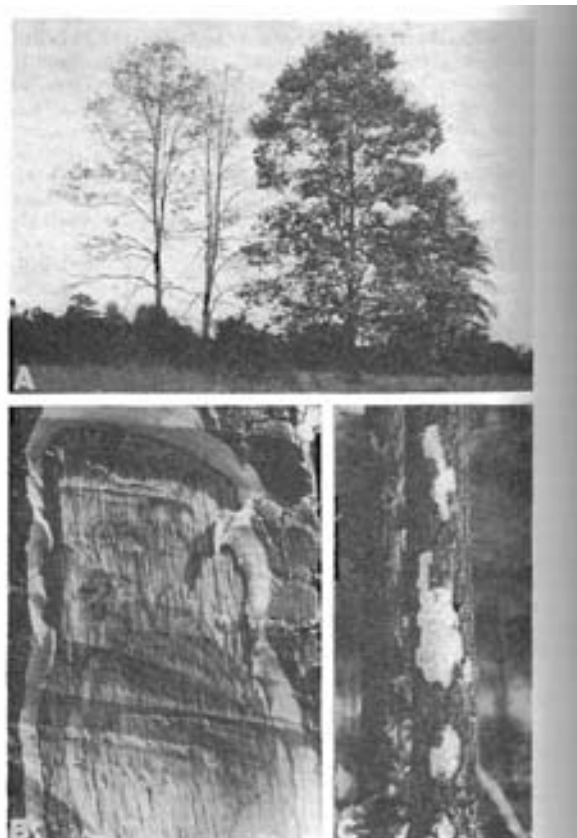


FIG. 1. A. Wilted persimmon tree on left, healthy tree on right. B. Brownish-black streaks in the wood. C. Spores of *C. diospyri* produced between the bark and wood.

THE WILT DISEASE OF AMERICAN PERSIMMON, CAUSED BY CEPHALOSPORIUM DIOSPYRI

BOWEN S. CRANDALL¹ AND W. L. BAKER²

(Accepted for publication July 15, 1949)



FIG. 2. Distribution of the persimmon wilt disease and year of estimated earliest known infection found, by counties.

Situación fitosanitaria del caqui

- ❑ Óptima comparada con la de otros países
- ❑ Cultivo en plena expansión
- ❑ Riesgo de introducción de nuevas enfermedades
- ❑ **iii RESPONSABILIDAD !!!**